Amendment and Remarks Serial No. 10/015,106 Page 14 of 18

## REMARKS

This amendment and remarks are submitted in response to the outstanding office action mailed January 27, 2004. Reconsideration of the present application is requested.

In this amendment, claims 1, 16, 50, 54-58, 60, 61, 71 and 73 are amended. In addition, claims 37-49 are cancelled. The currently pending claims in the application are 1-25, 27-36, 50-58 and 60-76.

Independent claims 1, 50, 54, 55-58, 60, and 61 have been amended to recite that a reinforcing structure for use in a pultruded part according to the present invention consists essentially of three components a) longitudinal rovings, b) properly oriented reinforcing fibers and c) a transport web of staple fibers that are bonded together. As previously stated in the response dated November 10, 2004, the reinforcing fibers are properly oriented and do not overlap. This configuration of the fibers in the recited reinforcing structure provides a much thinner reinforcing structure that has a thickness of about 0.004-0.020 inches. This thin reinforcing structure can, therefore, be used to make a thinner pultruded part having a minimum wall thickness without compromising, in part, the transverse strength of the pultruded part.

The amendments to the claims are fully supported by the specification and claims as originally filed and do not include new matter. For completeness, Applicants note that amendments have been made to claims 50 and 54 to correct a typographical error identified by the Examiner and to provide antecedent basis for the phrase "portion of the reinforcing fibers". These amendments overcome the objections to claims 50 and 54.

In the outstanding office action, all of the claims were rejected as being unpatentable in view of various combinations of references that are cited for the first time in this office action. Applicants note that the rejections of the claims based on the references cited in the previous office action have been with drawn. The new rejections of the claims made by the Examiner are summarized in the following table.

Amendment and Remarks Serial No. 10/015,106 Page 15 of 18

Currently Rejected Claims	Cited References
1-10, 13-18, 20, 27, 30-31, 37, 54, 60-65, 67-68 and 71-76	Haraguchi (primary), Corrons
19	Haraguchi (primary), Corrons and Radvan
21-25, 28-29, 50-53, 56 and 66	Haraguchi (primary), Corrons
11-12 and 55	Haraguchi (primary), Corrons and Martin
20-25, 32-33 and 75-76	Haraguchi (primary), Corrons and Vane
34-36, 38-49, 57-58 and 69-70	Haraguchi (primary), Corrons and Vane
32-33	Haraguchi (primary), Corrons and Beer

As evident from the table, each rejection is based on a single primary reference, Haraguchi, in view of several different secondary references that are used to attempt to overcome the particular deficiencies of the primary reference.

The deficiencies of Haraguch: are clearly set out in the present, and in the previous, office actions. For example, in the present office action the Examiner has stated that Haraguchi 1) "fails to teach the use of rovings in the reinforcing structure," 2) "does not explicitly teach the claims' permeability, tensile strength, bending resistance of fiber and ratio of a modulus of elasticity" 3) "fails to teach the use of bi-components fibers with coresheath configuration," 4) "fails to teach the claimed transverse direction to which additional reinforcing fibers extend," and 5) "fails to teach the use of a surface treatment of the fibers".

Because of these deficiencies of the primary reference, the secondary references are used to identify the recited features missing from Haraguchi. In brief, Corrons is used to show use of longitudinal rovings as viell as stitching and holes formed in the fabric. Radvan is used to show a polyvinyl acetate binder used with a reinforcing material. Martin is used to show a multi-component filament. Vane is used to show layers of yarns or threads that are stitched together. Beer is used to show a permeable mat that may be treated with a silane composition.

Applicants first point out that there is no teaching or suggestion in any of the references cited in the outstanding of a cation of a reinforcing structure consisting essentially of (i) a plurality of longitudinal rovings oriented along the longitudinal pull

Amendment and Remarks Serial No. 10/015,106 Page 16 of 18

direction, (ii) a plurality of reinforcing fibers and (iii) at least one permeable transport web. Corrons reports a complex multilayer fabric that contains a porous tissue paper backing. This tissue paper backing serves as a foundation for the additional layers of the complex fabric including chopped glass fibers and g ass fiber rovings. In clear contrast to the fabric reported by Corrons, the claimed invention does not contain the tissue paper backing. There is no teaching or suggestion that the rovings reported by Corrons should be used without the reported tissue paper backing. Applicants also note that in an earlier office action mailed March 30, 2004, this recited feature of the use of roving strands with a mat was argued by the Examiner to be shown in the reference to Beall. Since this rejection was overcome in the earlier response and has been withdrawn, Applicants submit that all of the claims are in condition for allowance because the Examiner has failed to provide any teaching or suggestion for the claimed invention

Applicants again point out that Haraguchi also fails to teach or suggest a reinforcing structure consisting essentially of reinforcing fibers that are specifically oriented in a generally planar non-overlapping configuration so that the reinforcing fibers do not extend over or cover one another in order to provide a reinforcing structure having a thickness of 0.004-0.020 inches as now recited in all of the pending independent claims. This deficiency of Haraguchi is not overcome by any of the secondary references to Corrons, Radvan, Vane, Martin, or Beer. Corrons, for example, reports that the minimal thicknesses for both a mat layer (p. 4, 0.50 mm) and a roving layer (p. 6, 0.50 mm) together provide a thickness of 1.0 mm or 0.039 inches without considering the thickness of the required tissue paper backing. Simply put, there has been no prior art identified that teaches or suggests that the now-claimed configuration of the reinforcing fibers with the claimed thickness.

However, in an effort to advance the prosecution of the present application,
Applicants also provide additional reasons that the amended claims are patentable over the
prior art of record. Specifically, Applicants disagree that all of the measured, physical
features of the claimed invention are inherent in the materials of Haraguchi when combined
with the teachings or suggestions of Corrons. Corrons expressly teaches and suggests the use

Amendment and Remarks Serial No. 10/015,106 Page 17 of 18

of a tissue paper backing to form a complex multilayer fabric. The claimed physical properties of the present invention considered as a whole cannot be presumed to be inherent in a compilation taught by the combination of Haraguchi and Corrons simply because there is an overlap with some of the material; that are used.

Further, Applicants disagree that the other secondary references teach or suggest the claimed invention. The various features that have been found in the secondary references depend on the disclosure of the present invention. There is nothing, absent the present disclosure, that serves as a basis to make the combinations that have been relied on by the Examiner. There must be some motivation to combine the cited references independent of the disclosure of the present application. Absent a proper motivation to combine the cited references, Applicants request that the other rejections also be withdrawn.

In sum, all of the independent claims now include the feature that the reinforcing structure has fibers oriented in a generally planar non-overlapping configuration so that the reinforcing fibers do not extend over or cover one another in order to provide a reinforcing structure having a thickness of 0.004-0.020. Applicants submit that all of the rejections set out in the office action are therefore traversed for the reasons set out above and request that the rejections of the claims be withdrawn.

Finally, Applicants acknowledge that the Examiner has made a provisional obviousness-type double patenting rejection of the pending claims based on the pending claims of copending application serial number 10/015,126 in view of US 4,983,453 to Beall (Applicants assume that the application serial number actually set out in the office action - 10/015,106 - is a typographical error and the serial number was intended to be 10/015,126. Confirmation of this assumption is requested). Applicants, in order to provide a complete response to the office action, offer to file an appropriate Terminal Disclaimer to overcome this rejection upon notice of allowable subject matter in the now copending applications.

Amendment and Remarks Serial No. 10/015,106 Page 18 of 18

In view of the present amendment and remarks, Applicants submit that the claims, as amended, are in condition for allowance and request that the Examiner pass this application to issuance.

Respectfully Submitted,

LAURENCE W. DAVIES et al.

Dated: April 21, 2005

By:

Paul W. Busse, #32,403 FAEGRE & BENSON LLP 2200 Wells Fargo Center 90 South Seventh Street Minneapolis, MN 55402-3901

612/766-7046

M2:20705397.01